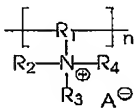
AMENDMENTS TO THE CLAIMS:

This listing of claims will replace all prior versions, and listings of claims in the application:

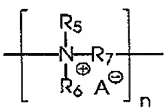
LISTING OF CLAIMS:

1. (Original) An ink composition comprising (a) water, (b) an anionic dye, (c) a polyquaternary amine compound, and (d) a quaternary ammonium substituted UV absorbing compound.

2. (Original) An ink composition according to claim 1 wherein the polyquaternary amine compound is of one of the formulae



or



wherein n is an integer representing the number of repeat monomer units, R_1 and R_7 each, independently of the other, is an alkylene group, an arylene group, an arylalkylene group, or an alkylarylene group, and R_2, R_3, R_4, R_5, and R_6 each, independently of the others, are hydrogen atoms, alkyl groups, aryl groups, arylalkyl groups, or alkylaryl groups.

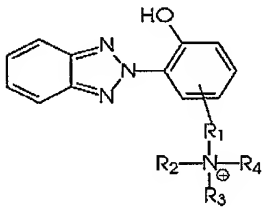
3. (Original) An ink composition according to claim 1 wherein the polyquaternary amine compound is selected from the group consisting of polydiallyl ammonium compounds, polyquaternized polyvinylamines, polyquaternized polyallylamines, epichlorohydrin/amine copolymers, cationic amido amine copolymers, copolymers of vinyl pyrrolidinone and a vinyl imidazolium salt, and mixtures thereof.

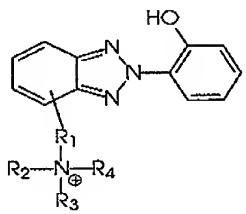
4. (Original) An ink composition according to claim 1 wherein the polyquaternary amine compound is a polydiallyl dimethyl ammonium compound.

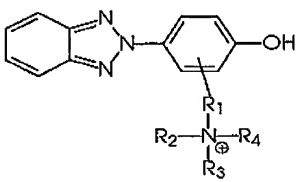
5. (Original) An ink composition according to claim 1 wherein the polyquaternary amine compound is present in the ink in an amount of at least about 0.01 percent by weight of the ink and wherein the cationic polymer is present in the ink in an amount of no more than about 50 percent by weight of the ink.

6. (Original) An ink composition according to claim 1 wherein the quaternary ammonium substituted UV absorbing compound is a 2-(3-(2H-benzotriazol-2-yl)-4-hydroxyphenyl) quaternary compound, a hydroxybenzophenone quaternary compound, or a quaternary ammonium derivative of a dialkylaminobenzoate.

7. (Original) An ink composition according to claim 1 wherein the quaternary ammonium substituted UV absorbing compound is of one of the general formulae







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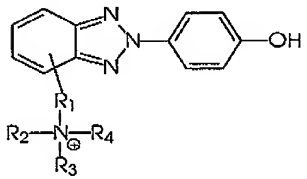
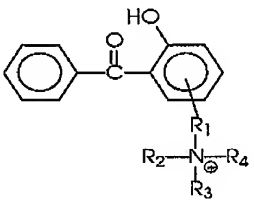
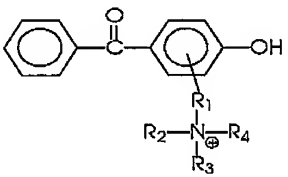
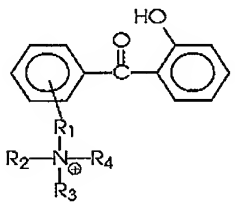
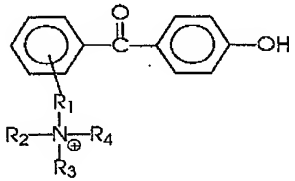


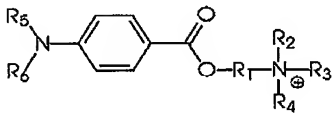








or



wherein R_1 is an alkylene group, an arylalkylene group, or a polyalkyleneoxy group, R_2, R_3, and R_4 each, independently of the others, is a hydrogen atom, an alkyl group, an aryl group, an arylalkyl group, an alkylaryl group, an alkoxy group, or a polyalkyleneoxy group, and R_5 and R_6 each, independently of the other, is an alkyl group or an arylalkyl group.

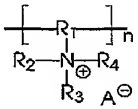
8. (Original) An ink composition according to claim 1 wherein the quaternary ammonium substituted UV absorbing compound is 2-(3-(2H-benzotriazol-2-yl)-4-hydroxyphenyl)propionyl aminoethyl-trimethylammonium chloride or the choline chloride ester of N,N-dimethylaminobenzoic acid.

9. (Original) An ink composition according to claim 1 wherein the quaternary ammonium substituted UV absorbing compound is present in the ink in an amount of at least about 0.05 percent by weight of the ink, and wherein the quaternary ammonium substituted UV absorbing compound is present in the ink in an amount of no more than about 10 percent by weight.

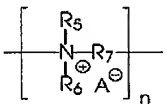
10. (Original) An ink composition according to claim 1 wherein the ink further contains a nonpolymeric salt.

11. (Original) An ink composition comprising (a) water, (b) a complex of (i) an anionic dye and (ii) a polyquaternary amine compound, and (c) a quaternary ammonium substituted UV absorbing compound.

12. (Original) An ink composition according to claim 11 wherein the polyquaternary amine compound is of one of the formulae



or



wherein n is an integer representing the number of repeat monomer units, R_1 and R_7 each, independently of the other, is an alkylene group, an arylene group, an arylalkylene group, or an alkylarylene group, and R_2, R_3, R_4, R_5, and R_6 each, independently of the others, are hydrogen atoms, alkyl groups, aryl groups, arylalkyl groups, or alkylaryl groups.

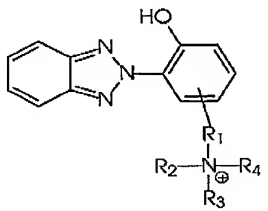
13. (Original) An ink composition according to claim 11 wherein the polyquaternary amine compound is selected from the group consisting of polydiallyl ammonium compounds, polyquaternized polyvinylamines, polyquaternized polyallylamines, epichlorohydrin/amine copolymers, cationic amido amine copolymers, copolymers of vinyl pyrrolidinone and a vinyl imidazolium salt, and mixtures thereof.

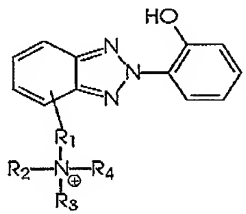
14. (Original) An ink composition according to claim 11 wherein the polyquaternary amine compound is a polydiallyl dimethyl ammonium compound.

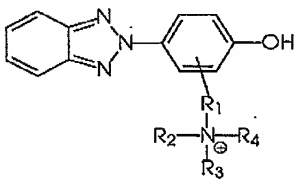
15. (Original) An ink composition according to claim 11 wherein the polyquaternary amine compound is present in the ink in an amount of at least about 0.01 percent by weight of the ink and wherein the cationic polymer is present in the ink in an amount of no more than about 50 percent by weight of the ink.

16. (Original) An ink composition according to claim 11 wherein the quaternary ammonium substituted UV absorbing compound is a 2-(3-(2H-benzotriazol-2-yl)-4-hydroxyphenyl) quaternary compound, a hydroxybenzophenone quaternary compound, or a quaternary ammonium derivative of a dialkylaminobenzoate.

17. (Original) An ink composition according to claim 11 wherein the quaternary ammonium substituted UV absorbing compound is of one of the general formulae







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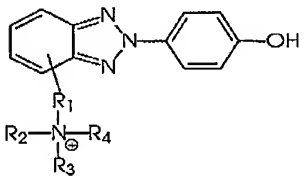

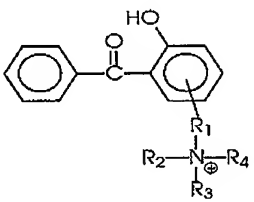

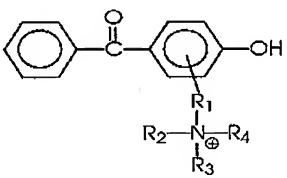

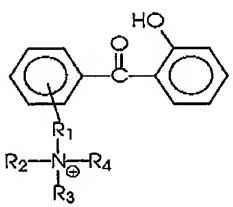

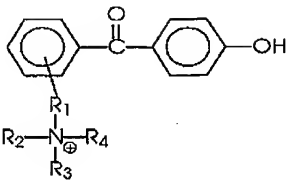

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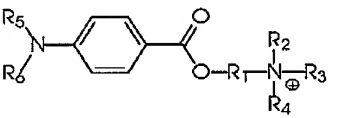


wherein R_1 is an alkylene group, an arylalkylene group, or a polyalkyleneoxy group, R_2, R_3, and R_4 each, independently of the others, is a hydrogen atom, an alkyl group, an aryl group, an arylalkyl group, an alkylaryl group, an alkoxy group, or a polyalkyleneoxy group, and R_5 and R_6 each, independently of the other, is an alkyl group or an arylalkyl group.

18. (Original) An ink composition according to claim 11 wherein the quaternary ammonium substituted UV absorbing compound is 2-(3-(2H-benzotriazol-2-yl)-4-hydroxyphenyl)propionyl aminoethyl-trimethylammonium chloride or the choline chloride ester of N,N-dimethylaminobenzoic acid.

19. (Original) An ink composition according to claim 11 wherein the quaternary ammonium substituted UV absorbing compound is present in the ink in an amount of at least about 0.05 percent by weight of the ink, and wherein the quaternary ammonium substituted UV absorbing compound is present in the ink in an amount of no more than about 10 percent by weight.

20. (Original) An ink composition according to claim 11 wherein the ink further contains a nonpolymeric salt.

21. (Original) A process which comprises incorporating into an ink jet printing apparatus an ink composition comprising (a) water, (b) an anionic dye, (c) a polyquaternary amine compound, and (d) a quaternary ammonium substituted UV absorbing compound, and causing droplets of the inks to be ejected in an imagewise pattern onto a recording substrate.

22. (Original) A process according to claim 21 wherein the printing apparatus employs a thermal ink jet process wherein the ink in the nozzles is selectively heated in an imagewise pattern, thereby causing droplets of the ink to be ejected in imagewise pattern.

23. (Original) A process according to claim 21 wherein the printing apparatus employs a piezoelectric ink jet process wherein droplets of the ink are caused to be ejected in imagewise pattern by oscillations of piezoelectric vibrating elements.

24. (Original) A process which comprises incorporating into an ink jet printing apparatus an ink composition comprising (a) water, (b) a complex of (i) an anionic dye and (ii) a polyquaternary amine compound, and (c) a quaternary ammonium substituted UV absorbing compound, and causing droplets of the inks to be ejected in an imagewise pattern onto a recording substrate.

25. (Original) A process according to claim 24 wherein the printing apparatus employs a thermal ink jet process wherein the ink in the nozzles is selectively heated in an imagewise pattern, thereby causing droplets of the ink to be ejected in imagewise pattern.

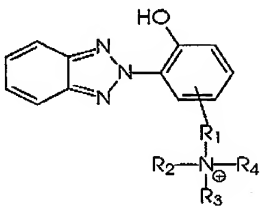
26. (Original) A process according to claim 24 wherein the printing apparatus employs a piezoelectric ink jet process wherein droplets of the ink are caused to be ejected in imagewise pattern by oscillations of piezoelectric vibrating elements.

27. (New) An ink composition according to claim 1 wherein the quaternary ammonium substituted UV absorbing compound is a 2-(3-(2H-benzotriazol-2-yl)-4-hydroxyphenyl) quaternary compound.

28. (New) An ink composition according to claim 1 wherein the quaternary ammonium substituted UV absorbing compound is a hydroxybenzophenone quaternary compound.

29. (New) An ink composition according to claim 1 wherein the quaternary ammonium substituted UV absorbing compound is a quaternary ammonium derivative of a dialkylaminobenzoate.

30. (New) An ink composition according to claim 1 wherein the quaternary ammonium substituted UV absorbing compound is of the general formula



wherein R_1 is an alkylene group, an arylalkylene group, or a polyalkyleneoxy group, and R_2, R_3, and R_4 each, independently of the others, is a hydrogen atom, an alkyl group, an aryl group, an arylalkyl group, an alkylaryl group, an alkoxy group, or a polyalkyleneoxy group.

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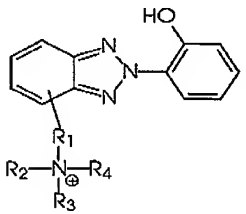
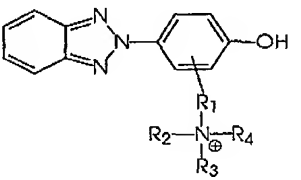
31. (New) An ink composition according to claim 1 wherein the quaternary ammonium substituted UV absorbing compound is of the general formula



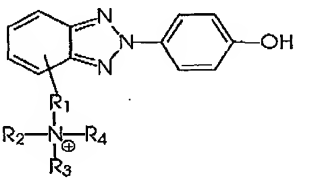
wherein R_1 is an alkylene group, an arylalkylene group, or a polyalkyleneoxy group, and R_2, R_3, and R_4 each, independently of the others, is a hydrogen atom, an alkyl group, an aryl group, an arylalkyl group, an alkylaryl group, an alkoxy group, or a polyalkyleneoxy group.

32. (New) An ink composition according to claim 1 wherein the quaternary ammonium substituted UV absorbing compound is of the general formula



wherein R_1 is an alkylene group, an arylalkylene group, or a polyalkyleneoxy group, and R_2, R_3, and R_4 each, independently of the others, is a hydrogen atom, an alkyl group, an aryl group, an arylalkyl group, an alkylaryl group, an alkoxy group, or a polyalkyleneoxy group.

33. (New) An ink composition according to claim 1 wherein the quaternary ammonium substituted UV absorbing compound is of the general formula



wherein R_1 is an alkylene group, an arylalkylene group, or a polyalkyleneoxy group, and R_2, R_3, and R_4 each, independently of the others, is a hydrogen atom, an alkyl group, an aryl group, an arylalkyl group, an alkylaryl group, an alkoxy group, or a polyalkyleneoxy group.

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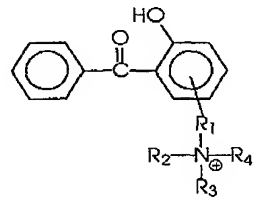
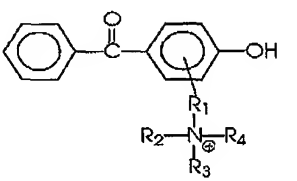
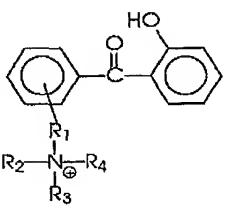
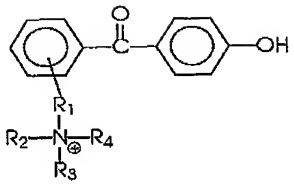
34. (New) An ink composition according to claim 1 wherein the quaternary ammonium substituted UV absorbing compound is of one of the general formulae





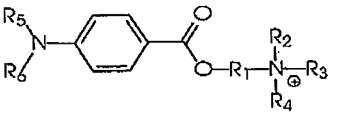


or



wherein R_1 is an alkylene group, an arylalkylene group, or a polyalkyleneoxy group, and R_2, R_3, and R_4 each, independently of the others, is a hydrogen atom, an alkyl group, an aryl group, an arylalkyl group, an alkylaryl group, an alkoxy group, or a polyalkyleneoxy group.

35. (New) An ink composition according to claim 1 wherein the quaternary ammonium substituted UV absorbing compound is of the general formula



wherein R_1 is an alkylene group, an arylalkylene group, or a polyalkyleneoxy group, R_2, R_3, and R_4 each, independently of the others, is a hydrogen atom, an alkyl group, an aryl group, an arylalkyl group, an alkylaryl group, an alkoxy group, or a polyalkyleneoxy group, and R_5 and R_6 each, independently of the other, is an alkyl group or an arylalkyl group.

36. (New) An ink composition according to claim 11 wherein the quaternary ammonium substituted UV absorbing compound is a 2-(3-(2H-benzotriazol-2-yl)-4-hydroxyphenyl) quaternary compound.

37. (New) An ink composition according to claim 11 wherein the quaternary ammonium substituted UV absorbing compound is a hydroxybenzophenone quaternary compound.

38. (New) An ink composition according to claim 11 wherein the quaternary ammonium substituted UV absorbing compound is a quaternary ammonium derivative of a dialkylaminobenzoate.

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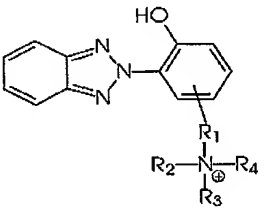
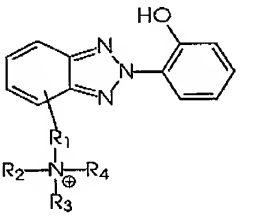
39. (New) An ink composition according to claim 11 wherein the quaternary ammonium substituted UV absorbing compound is of the general formula



wherein R_1 is an alkylene group, an arylalkylene group, or a polyalkyleneoxy group, and R_2, R_3, and R_4 each, independently of the others, is a hydrogen atom, an alkyl group, an aryl group, an arylalkyl group, an alkylaryl group, an alkoxy group, or a polyalkyleneoxy group.

40. (New) An ink composition according to claim 11 wherein the quaternary ammonium substituted UV absorbing compound is of the general formula



wherein R_1 is an alkylene group, an arylalkylene group, or a polyalkyleneoxy group, and R_2, R_3, and R_4 each, independently of the others, is a hydrogen atom, an alkyl group, an aryl group, an arylalkyl group, an alkylaryl group, an alkoxy group, or a polyalkyleneoxy group.

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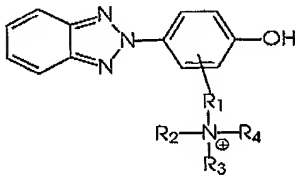
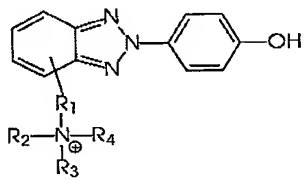
41. (New) An ink composition according to claim 11 wherein the quaternary ammonium substituted UV absorbing compound is of the general formula



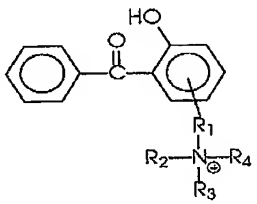
wherein R_1 is an alkylene group, an arylalkylene group, or a polyalkyleneoxy group, and R_2, R_3, and R_4 each, independently of the others, is a hydrogen atom, an alkyl group, an aryl group, an arylalkyl group, an alkylaryl group, an alkoxy group, or a polyalkyleneoxy group.

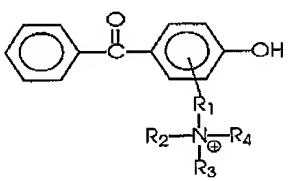
42. (New) An ink composition according to claim 11 wherein the quaternary ammonium substituted UV absorbing compound is of the general formula

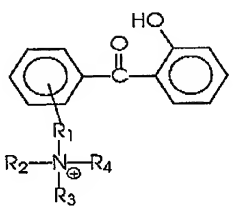


wherein R_1 is an alkylene group, an arylalkylene group, or a polyalkyleneoxy group, and R_2, R_3, and R_4 each, independently of the others, is a hydrogen atom, an alkyl group, an aryl group, an arylalkyl group, an alkylaryl group, an alkoxy group, or a polyalkyleneoxy group.

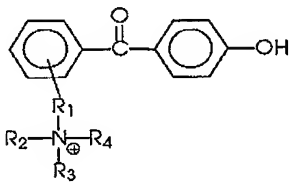
43. (New) An ink composition according to claim 11 wherein the quaternary ammonium substituted UV absorbing compound is of one of the general formulae





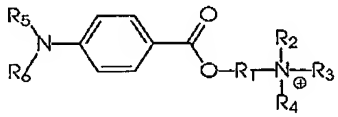


or



wherein R_1 is an alkylene group, an arylalkylene group, or a polyalkyleneoxy group, and R_2, R_3, and R_4 each, independently of the others, is a hydrogen atom, an alkyl group, an aryl group, an arylalkyl group, an alkylaryl group, an alkoxy group, or a polyalkyleneoxy group.

44. (New) An ink composition according to claim 11 wherein the quaternary ammonium substituted UV absorbing compound is of the general formula



wherein R_1 is an alkylene group, an arylalkylene group, or a polyalkyleneoxy group, R_2, R_3, and R_4 each, independently of the others, is a hydrogen atom, an alkyl group, an aryl group, an arylalkyl group, an alkylaryl group, an alkoxy group, or a polyalkyleneoxy group, and R_5 and R_6 each, independently of the other, is an alkyl group or an arylalkyl group.